

VSA MYP Mathematics Year 10 Topic Planner



(Extended Maths Objectives **highlighted**)

Time for this unit: 2 to 3 weeks (4.5 lessons per week. 50 mins/lesson)

Weeks	Topic	General Aims By the end of this unit students should be able to:	Specific VSA Learning Objectives By the end of this unit students should know/be able to:	Main Resource(s)
15 to 17	Probability	<ul style="list-style-type: none"> ➤ Understand what probability means and how it is calculated ➤ Understand how to combine events ➤ Understand the link between theoretical and experimental probability 	<ul style="list-style-type: none"> ➤ Understand and use key vocabulary (event, sample space, trial, outcome, 50:50, likely, unlikely) and set notation (A', \cap, \cup, $\{ \}$, \emptyset etc) ➤ Calculate single event (theoretical or experimental) probability through $p(E) = \frac{\text{No. successful events}}{\text{Total No. events}}$ ➤ Understand and use $p(E') = 1 - p(E)$ ➤ Understand the definition of independent events and use $p(A \cap B) = p(A) \times p(B)$ ➤ Understand the definitions of mutually (or non-mutually) exclusive events and use: $p(A \cup B) = p(A) + p(B) - p(A \cap B)$ ➤ Use tree and Venn diagrams to find probabilities ➤ Understand conditional probability and use either a restricted sample space or the formula $p(A/B) = \frac{p(A \cap B)}{p(B)}$ 	New Trend Mathematics 4B (Ch6) New Trend Mathematics (Teachers CD + DVD)
				Support Resources
	What role does chance play in our lives?	Human Ingenuity – how the “founding fathers” of probability analysed simple games to come up with theory that today can be used to explain a huge variety of scientific and social phenomena Technology <ul style="list-style-type: none"> ➤ Random number generators (GDC and Web) ➤ Dice-rollers and coin-tossers (web-based) Embedded Enquiry Hand-on experience with dice (virtual and real). Looking at games of chance (lottery, raffle, etc). The game of “PIG”	Learner Profile	
			Inquirers – Students explore experimental probability Thinkers – Students connect theoretical probability to (seemingly) random events in life	
			Assessment	
			Patterns in Probability (Criteria B, C)	
	ATL	Collaboration Skills: Students express ideas in discussion, allowing others to express their opinions and reach consensus (when analysing games). Communication Skills: Correctly interpret and utilise subject specific terminologies and symbols.	Cross-curricular Links	
			Links to statistics in science, humanities and maths	